

STATEMENT ON THE TEACHING OF EVOLUTION

by the Board of Directors
American Association for the Advancement of Science
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Evolution is one of the most robust and widely accepted principles of modern science. It is the foundation for research in a wide array of scientific fields and, accordingly, a core element in science education. The AAAS Board of Directors is deeply concerned, therefore, about legislation and policies recently introduced in a number of states and localities that would undermine the teaching of evolution and deprive students of the education they need to be informed and productive citizens in an increasingly technological, global community. Although their language and strategy differ, all of these proposals, if passed, would weaken science education. The AAAS Board of Directors strongly opposes these attacks on the integrity of science and science education. They threaten not just the teaching of evolution, but students' understanding of the biological, physical, and geological sciences.

Some bills seek to discredit evolution by emphasizing so-called "flaws" in the theory of evolution or "disagreements" within the scientific community. Others insist that teachers have absolute freedom within their classrooms and cannot be disciplined for teaching non-scientific "alternatives" to evolution. A number of bills require that students be taught to "critically analyze" evolution or to understand "the controversy." But there is no significant controversy within the scientific community about the validity of the theory of evolution. The current controversy surrounding the teaching of evolution is not a scientific one.

Science is a process of seeking natural explanations for natural phenomena. Scientists ask questions about the natural world, formulate hypotheses to answer the questions, and collect evidence or data with which to evaluate the hypotheses. Scientific theories are unified explanations of these phenomena supported by extensive testing and evidence. The theory of evolution, supported by extensive scientific findings ranging from the fossil record to the molecular genetic relationships among species, is a unifying concept of modern science. Of course, our understanding of how evolution works continues to be refined by new discoveries.

Many of the proposed bills and policies aim explicitly or implicitly at encouraging the teaching of "Intelligent Design" in science classes as an alternative to evolution. Although advocates of Intelligent Design usually avoid mentioning a specific creator, the concept is in fact religious, not scientific. In an October 18, 2002 resolution, the AAAS Board underlined the inappropriateness of teaching Intelligent Design in the science classroom because of its "significant conceptual flaws in formulation, a lack of credible scientific evidence, and misrepresentations of scientific facts." Judge John E. Jones III of the Middle District Court of Pennsylvania firmly reached similar conclusions in the Dover Area School District case.

The sponsors of many of these state and local proposals seem to believe that evolution and religion are in conflict. This is unfortunate. They need not be incompatible. Science and religion ask fundamentally different questions about the world. Many religious leaders have affirmed that they see no conflict between evolution and religion. We and the overwhelming majority of scientists share this view.